1: Coon E-5 (1926-1927) 1931 MX3 Rif MX3

The gathering of wild vegetable products is traditionally considered to antedate agriculture. Tales are told of the times when the Riffians subsisted on these products and game alone. In Ktama, where agriculture is difficult, the gathering of wild plants, especially *tuzzelt*, forms an important occupation. At the end of winter, when the dried fruit is gone and when the larders are low, many Riffian families would die of hunger if their womenfolk did not go out on the mountain slopes and up the watercourses looking for these natural foods.

The green plants, such as watercress and asparagus, are subject to a dietary sex tabu. Woman only may eat them. The reason given for this distinction is that they produce blood, fat, and soft flesh, desirable in women but not in men.

Mulberries and cherries were probably introduced by the Arabs and later abandoned. Mulberries are not considered good food and are seldom eaten except through necessity. Tomatoes were probably introduced from Spain and then given up.

Cultivation of Fruit and Nut Trees and of Vineyards. *zilon* (male), *misala* (female), the domestic olive tree. The male tree produces large olives low in oil content, which are preserved in lemon juice and eaten as a relish. The fruit of the female tree is pressed into oil. As a rule all the male trees in an olive yard are cut down with the exception of one, which is left to fertilize the female trees. The olives are called by the names of the trees which bear them.

arman, the pomegranate tree. The Riffians recognize sex differences in pomegranates, considering that the fruit with a thick skin and large, hard seeds in the granules is produced by the male tree, whereas the better fruit is produced by females. As a rule, the male trees are all cut down but one, which is left for fertilising the others. Sometimes male trees are left, so that the fruit may be sold in markets frequented by people unacquainted with the difference. The fruit and tree bear the same name.

er ghas, the fig tree. There are four varieties of fig trees, *aseiri*, *aghudani*, *awar n aksi*, and *abaran*. The fruit borne by the *aseiri* is round, with longitudinal purple and green lines; that of the *aghudani* is long, pear-shaped, and purple; that of the *awar n aksi* is round and light green. There are two varieties of *abaran*, one of which is round and green and the other long with black or purple lines. The three first varieties bear twice a year, in June and in September. The June figs, called *er bashor*, are eaten but not dried, except for use as medicine, since they contain but little sugar. The September figs, called *thezath*, are dried. The *abaran* varieties bear only in September. The Riffians say that the *abaran* types are the only indigenous strains, and that the *aseiri* and *awar n aksi* came originally from the Arabs, whereas the *aghudani* is derived from the Negroes.

shukwar, a wild fig. Planted, it is said, by birds that have eaten cultivated figs, this fruit is useless for eating, but is employed for magical purposes. Each year the women and children go out and gather the wild figs when ripe, tie them together in pairs with grass, and hang them on the branches of the domesticated fig trees. There are said to be insects in the wild figs which come out and touch the buds of the domestic figs. It is thought that if these wild figs were not so hung and if the insects from them did not touch the buds, the cultivated figs would not bear.[1]

[1] Westermarck (p. 190) states that the Riffians hang male figs in female trees, in order to fertilize their fruit. A small insect, *Blastophaga grossorum*, bores in and out of the figs, fertilising them. Westermarck refers to Elfving's *De Viktigaste Kulturväxterna* (Helsingfors, 1895), p. 74.

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245 242 *lishin*, the orange tree. Riffian oranges are of the common North African variety. Tangerines are not grown in the Rif. It is said that the fruit of the male orange tree is elongated, while that of the female tree is round. Orange shoots are grafted to wild lemon trees without distinction of sex.

limon, the cultivated lemon tree, as distinguished from the wild variety.

tifah, the apple tree. Riffian apples are small and stunted, and not very palatable. They are not commonly grown except in the highest mountain tribes. The apple shoots are frequently grafted onto hawthornes. A sex distinction is made between the apples: the male ones are said to be large and white, and the females red.

firas, the pear tree. It is said that the male pear is white, while the female is reddish. Grafting onto hawthorne is common.

thaghieshth, the walnut tree. Walnuts are called *nuc n thaghieshth*. The Riffians distinguish male from female walnut trees as follows: The male tree bears a hard-shelled nut with little meat; the female's nut is thinner shelled and meatier. Usually the males are cut down to make room for others. No grafting is attempted with walnuts.

juz, the almond tree. The nuts from this tree are called *nuc*, the same word which is applied to walnuts. It is said that the male almond bears a nut with a single meat, while the meat of the female is double. Almonds, like walnuts, are not grafted.

er mishmesh, a species of plum tree. The sex of plums is distinguished by breaking the stone and tasting the meat inside. If it is bitter the tree bearing it is supposed to be male. Plums, like apples and pears, are grafted to the hawthorne.

er barkok, the apricot tree. Males are said to have thick skins, and females thin ones. Males are preferred for export, and females for drying.

er khok, the peach tree. The Riffians do not distinguish sex in the peaches, and do not attempt to graft them.

[262] The Riffian prizes his fruit and nut trees highly, perhaps even more than his grain and vegetables, since on the dried fruit of these trees and upon raisins his family is often forced to subsist for months at a time during the winter. He digs around and manures the roots of the trees every spring, and leads irrigation ditches to their trunks. He keeps them carefully pruned and trimmed, and diligently removes insect parasites from leaves and branches.

262 831 [585] Not only does the Riffian take great pains to distinguish between the sexes of the trees, but he also imposes a sex tabu upon the eating of the fruit of two of them, walnuts and almonds. Walnuts may be eaten only by women, and almonds only by men. The reason for this is symbolically sexual, since walnuts, on account of their wrinkled appearance, are supposed to produce a drying and shrinking, whereas almonds are supposed to produce fluidity and potency in men. Both walnuts and almonds consequently play a prominent part in the wedding diet.

Vineyards. Grapes are as important to the Riffians as fruits and nuts. Those grown in the Rif are a large reddish-purple variety, resembling Malaga grapes in form and in taste. They are grown on vines set out on high mountain slopes too steep and too barren for the cultivation of anything else. The vines are kept trimmed, and in spring the soil about their roots is loosened. It is seldom possible to irrigate them, although fertilizer is brought laboriously uphill when possible.

Among the Beni Bu Nsar, Beni Seddath, and Beni Khennus, and in Taghruth, another variety of grapes is grown, smaller and bluish-purple in color. These grapes are hardier

623 The fqih attended to the resources of the
793 mosque and the necessities of the cult; and the others usually bought
411 arms and ammunition which were lent out in necessary cases.[90] A man thus favored rarely returned his weapon, as the habus was considered to be a "rich widow".[91]

623 The council of the jma'th also maintained agricultural super-
624 visors, usually two who retained this office in perpetuity, even though
312 masters in the art could be called up in necessary instances, such as
242 litigations over other matters.[92]

623 The zealous equality and jealousy of the dharfiqin making up
613 the jma'th were generally responsible for the fact that the latter did not have an individual official representative who presided at meetings or imposed the executive of its decisions; but, at times, when one dharfiqth succeeded in acquiring, through cunning, bravery or money, some degree of preponderance, it generally came to an agreement with the others, and they all designated a representative. After this,
[555] the struggle began between the representative himself, inching his way toward personal power[93], and the jma'th, which was jealous of his
623 attributes and reputation. There were also religious struggles in
578 these minuscule nuclear social units, between, for example, an amrabidh
776 desirous of politico-religious influence and the jma'th, or "power of
792 the laymen", which, through cunning, always knew how to keep him away from the benefits of power, and also excluded him from responsibilities.
623 The representatives took the title which pleased them most, usually shaikh, but they were also known as iziddjifen (sing. aziddjif, literally "head"), or "headmen", and as imqqranen (sing. amqqran, literally "big"), or "big ones". Thus the same anarchy and confusion which we

312 562 [623] [681] The jma'ths agree on the amount of the fines to be imposed for infractions of these rules, especially those having to do with the freedom of women, forbidding the men either to come near them or to remain in those paths which lead to their washing or bathing sites. Ordinarily, in this case, a turn is set up for a boy to act as guard, at a prudent distance from the site, if the latter by its topographical situation or by its distance from the village renders such a move necessary.

D) Irrigation in General:

312 695 The utilization of water in the Central Rif, particularly among the Aith Waryaghar, is the object, in both general and particular cases, of agreements between the users; these agreements are made at the beginning of the summer for those water points which have a small or intermittent flow and which are of short duration. These agreements [212] are also usually unwritten, and they deal with the following points: 1) dams, 2) network of irrigation ditches, 3) repairs to ditches, 4) turns (nubth, pl. nubath) of those who irrigate, and 5) infractions and sanctions.

[466] The labor as well as the necessary repairs are done by compulsory personal service (twiza)[119] and proportional contributions on the part of the irrigators. Any ditches which need special work [333] done on them, such as bridges or retaining dams, are previously agreed upon to be done by contract with master-masons, with the cost of the materials included.

312 689 241 242 627 Infractions are usually reduced to: 1) appropriation by anyone of a turn or turns of water outside or exceeding his own, and 2) differences and disputes which during the "Republik" were settled

312 689 [24] [312 621] [624] amicably by irrigation specialists (aquwwam, pl. iquwwamen). In the latter instance, these specialists estimated the amount of damage done, and the individual who caused it had to pay for it.[120] The only penalty, most of the time, was indemnity of such damage, through, above all, small reparation projects. In case a man was also punished by fining, the fines were converted into improvements in the irrigation ditches. The irrigators did not make up special communities with their own jurisdiction or functionaries dedicated to the inspection and fulfillment of the agreements, because this rudimentary society was not fond of bureaucrats(!).....

312 675 423 The difficulty with these irrigation agreements rested primarily, more than on the distribution of the flow of water, on rather the outline of the ditch, for which it was necessary to acquire previously the consent of each one of the property owners on whose plots of land it ran over; these individuals did not ordinarily give in unless they themselves were given an irrigation turn; and, in addition, they made it clear that the ditch was not to cross their land but to follow the boundaries around it.

312 571 [805] Irrigation turns, in the instances dealt with here, are simple, and correspond to the same notion which will later be discussed for the bigger water-courses, and which is based upon the principle of equitable distribution, with the utilization of natural means to calculate the time. This is reduced, once the number of turns is known, to fixing the duration of these and the order in which they occur. This customarily takes place at the point of origin of the ditch or dam; once assembled, the irrigators draw lots, by which each one of them puts down a straw while another, with his back turned,